Art Unit: Unassigned

## Remarks

Applicants have canceled claims 1-36 and have added new claims 37-56. Support for the added claims is found in the specification and claims as filed.

Support for claims relating to methods for treating, preventing or ameliorating an immune system deficiency, by administering an unmethylated cytosine-guanine oligonucleotide is found throughout the specification, for example, at page 7 line 29- page 8 line 4 and page 11, lines 21-26 and page 21, lines 10-26 and in original claim 16.

Support is found on page 22, lines 17-25 for pharmaceutically acceptable carriers as well as in original claim 10.

Support for oligonucleotide comprising the sequence 5'-TGACGTT-3' and 5'TGACGTC3' is found, for example, at page 10, line 18.

Support for oligonucleotide comprising the sequence 5'-AACGTT-3' and 5'-TCAACGTT-3' is found, for example, at page 13, lines 20-21.

Support for claims relating to a nucleic acid delivery complex are found, for example, at page 11 and page 20, line 33 – page 21, line 2 (describing an oligonucleotide delivery complex, ionic and covalent linkage or association or encapsulation of an oligonucleotide with a molecule e.g., cationic lipid, sterol, liposome, virosome). Support is also found in original claim 9.

Support for the oligonucleotide having a length of 8-40 nucleotides is found in the specification page 7, lines 21-22 and page 10 lines 12-13.

Support for the oligonucleotide having a phosphate backbone modification such as a phosphorothioate is found page 9, lines 27-36 as well as in original claims 3-4.

Support for a method for modulating an immune response is found throughout the application, for example, on page 7, line 29 – page 8, line 4.

Support for methods of delivery including oral, transdermal and injection is found for example, on page 22, lines 9 - 15.

Support for the subject being human is found, on page 11, line 32.

Support for the unmethylated cytosine-guanine being flanked by two 5' purines and two 3' pyrimidines is found in the specification on page 13 lines 12-13 as well as in many of the examples.

Support for the oligonucleotide comprising  $X_1X_2CGX_3X_4$  3', wherein C and G are unmethylated,  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  are nucleotides and a GCG trinucleotide sequence is not

present at or near the 5' and 3' termini is found on page 7 lines 12-19, page 10, lines 4-10 and in original claim 2.

Support for the inclusion of at least two unmethylated cytosine-guanine motifs and wherein at least one is not palindromic is found in many of the examples of oligonucleotides provided in the tables, such as SEQ ID Nos. 8, 10, 11, 14, and 15 (i.e., data presented in table 1).

## **CONCLUSION**

If there is a fee occasioned by this response that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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